

**UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
STUDY PLAN**

Study ID code	CAPMC-T-0424-RA	
Title	Napa rangeland variety trial and establishment treatments	
National Project No.	Rangeland 1.1	
Study Type	AE	
Study status	Active	
Location	Napa	
Study Leaders	Chip Bouril, Napa FO and David Dyer, CAPMC	
Duration	2002 - 2008	
Cooperators	NRCS area and field offices, Gamble ranch, UC Coop. Ex.	
Land Use	Rangeland	
Vegetative Practices	Primary	550 Range planting
	Secondary	512 Pasture and hay planting
Resource concerns	<u>Resource</u>	<u>Consideration/Problem</u>
	Animals	Grazing land conservation
	Soil	Carbon sequestration
	Plants	Invasive species
Long Range Plan	Study falls under Section IV, Part 1 and 4 of the CA PM LRP	
Description	Determine best cultivar and establishment methods for range plantings in the Napa area and update the vegetative guide for use in farm bill programs.	
Status of Knowledge	Improved plant materials are in limited existence for the stated conservation practices and high performing both native and introduced species are needed. Current establishment methods have limited effectiveness and new methods and timing must be studied.	
Experimental Design	RCB Design, four replications	

Treatment 1	Title: Annual mix Description: Test two species for adaptability and performance in the Napa area
Treatment 2	Title: Native perennial mix Description: Test four species
Treatment 3	Title: Exotic perennial mix Description: Test two species
Treatment 4	Title: Combined perennial mix Description: Native and introduced species mixed, six species
Materials and Methods	Samples of seed assembled from PMC collections. Seed will be assembled in 2004. A total of 15 acres will be seeded to all plots. 25 PLS per sq. foot, weed control as needed, evaluate plots for vigor, stand establishment, height, forage, etc. Plant counts will be taken. No-till drill used for planting. Round-up will be applied before planting to kill annual grasses and weeds. The whole plot area had fire one year before planting and half of each plot had rye grass seeded at that time. Additional pre-emergent and post-emergent herbicides will be applied for annual grass and weed control. Species list is attached.
Final Evaluations	After initial evaluations, continue to evaluate for stand persistence and weed control
Technology Transfer Products	Revise FOTG standards, TechNote, Journal paper
Literature Cited	There is a need for high performance adapted rangeland species and establish methods for use in the range planting conservation practice in the Napa area. Successful conversion from an annual grass weed systems to a perennial grass system with few weeds has proven to be difficult and new establishment methods are needed.
Keywords	Rangeland, establishment methods, native grass
Review by: Approvals:	CA. State Plant Materials Committee As per approval of CAPMC Business Plan